

Effective Remote Teaching

Using Discord and OBS for education

- Pre requisites
 - Laptop with a webcam and microphone
 - Graphic Drawing Tablet (not essential)
 - Second Screen source or iOS/Win/Android Tablet (not essential but desired)
 - Decent internet connection
- Software required
 - OBS
 - SketchUp (not essential)
- Services Required
 - Discord (preferred)
 - Zoom
- Pro and Con of each service
 - Who Zoom is more useful for
 - Who Discord is more useful for

Discord Setup

- Classroom template
<https://discordapp.com/template/fVfBazbqjhXg>
- Useful bots
<https://top.gg/bot/444514223075360800>
- Resource placement
- Rooms for different functions (private 1 on 1 to group lectures and focus groups, with additional space for tutor and TA intra-support)

Discord - Differentiators to other platforms

- Group orientated learning
- Audio, text, screen sharing learning

- Optimised for cross platform use (phone, table, desktop/laptop)
- Access to resources when classroom is over

Presentation Methods

- Powerpoint
 - As a tool slides should either simplify, clarify, amplify (*else is it useful?*)
- Whiteboard
 - Whiteboard Fox <https://whiteboardfox.com/>
either a collaborative, or independent cloud visible browser based whiteboard
- All documents presented as PDF's if possible

Annotation

- PDF document markup
standard in Mac and windows
- Whiteboard Fox
- Autodesk Sketchbook (free)
<https://sketchbook.com/>

Maintaining Audience Engagement

- Presentation methods
 - Interaction up front before launching into the roll of tutor is good for preparation and can deal with anxiety
 - Structured content that is meaningful to them
 - Engagement triggers
 - Up front questions/ polls. Structure lesson for engagement as opposed to straight dialogue
 - 8-10 mins of attention span before things start to slip
 - Opportunity to change pace and structure for engagement around these slots
 - Linguistics (inclusive language, encourage a thought process)

- Virtual hand raising (identical to physical classroom)
- Use of break out rooms or focus groups to encourage participation - tutor can pop in and out of each room to check progress and judge level of understanding by students - *also indicator of engagement*
- Post presentation follow up
 - Materials, pdf's etc.. made accessible to students
 - Questions as an indicator of engagement
- Lighting/ Sound/ Camera Angle/ Posture
 - interesting, but not distracting
 - Mic levels management on laptop/ headset
 - Natural window light, or a light yourself up
 - Inform others that you may live with that you will be presenting and they should be mindful of background noise
- Discord (bots)
 - Integration of poll bots into discord to increase engagement and understanding from the audience.
 - Using TA's to facilitate polls and poll bots (very basic command programming language)

Equipment used in this presentation:

Camera Canon EOS R	https://amzn.to/2JpnVWY
Lens Canon 50mm f1.2	https://amzn.to/2JAY1zD
Canon AC power pack	https://amzn.to/2QRdgbu
Microphone Rode NT1A	https://amzn.to/3bC46rq
Focusrite Audio Interface	https://amzn.to/3dDSSEB
Microphone Cable	https://amzn.to/2w1ujk0
Desktop Mic Stand	https://amzn.to/2JqpiV2
Bose Headphones	https://amzn.to/2Uqu3UU
USB C to Thunderbolt 2	https://amzn.to/2QV4aL3
USB C to USB A	https://amzn.to/2WZAFVw
Thunderbolt 2 Cable	https://amzn.to/2wDcliN
Video Encoder	https://amzn.to/2xAzYr6
MacBook Pro*	https://amzn.to/2UrZKNJ
iPad Pro**	https://amzn.to/2UpDvrH
Manfrotto Tripod	https://amzn.to/2Uqa0pN

Not used in this video but recommended

USB powered dimmable desk lamp	https://amzn.to/3dCbrZK
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*While I have used a MacBook Pro in this presentation, it should be noted that any relatively modern midrange and upwards laptop will be able to handle the loads presented.

** iPad Pro was used purely as a secondary screen source

*** all other equipment used in todays presentation, with the exception of headphones and the iPad as mentioned does not need to be purchased for a basic online teaching presence.

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